

(51) International patent classification⁷: H01Q 1/24, 21/24, H04B 7/08, 7/10	A1	(11) International publication number: WO 00/49677 (43) International publication date: 24 August 2000 (24.08.00)
(21) International application number: PCT/FR00/00266 (22) International filing date: 4 February 2000 (04.02.00) (30) Data relating to the priority: 99/01921 17 February 1999 (17.02.99) FR (71) Applicant (for all designated States except US): NORTEL MATRA CELLULAR [FR/FR]; 1, place des Frères Montgolfier, F-78280 Guyancourt (FR). (72) Inventor; and (75) Inventor/Applicant (US only): LUCIDARME Thierry [FR/FR]; 1, allée Falconet, F-78180 Montigny le Bretonneux (FR). (74) Representative: LOISEL, Bertrand; Cabinet Plasseraud, 84, rue d'Amsterdam, F-75440 Paris Cedex 09 (FR).	(81) Designated states: BR, CA, CN, JP, US, European Patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published With the International Search Report.	

As printed

(54) Title: RADIO STATION ANTENNA WITH CIRCULAR POLARISATION**(54) Titre:** STATION RADIO A ANTENNE A POLARISATION CIRCULAIRE**(57) Abstract**

The invention concerns a radio station comprising means for processing radio signals, and several antennae (1, 2) respectively associated with hybrid polarising couplers (3₁, 3₂). Each polarising coupler has at least one input (A1 or B1, A2 or B2) connected to processing means and two outputs (C1 and D1, C2 and D2) connected to the antenna associated therewith such that when said outputs deliver two quadrature radio signals respectively in response to a transmission signal received on one of the two polarising coupler inputs, the antenna associated therewith generates two orthogonal electric field components forming a circular polarised wave. The processing means for the radio signals comprise at least a receiver (R1) arranged to combine several input radio signals obtained from the hybrid polarising couplers respective inputs. The antennae are arranged so as to radiate towards diametrically opposite sectors.

